Houlton Regional Hospital
Aroostook County
Houlton, Maine
A-208-71-I-A

Departmental
Findings of Fact and Order
Air Emission License
Amendment #1

FINDINGS OF FACT

After review of the air emissions license amendment application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 Maine Revised Statutes Annotated (M.R.S.A.), §344 and §590, the Maine Department of Environmental Protection (Department) finds the following facts:

I. REGISTRATION

A. Introduction

Houlton Regional Hospital (HRH) was issued Air Emission License A-208-71-H-R/M on March 30, 2012 permitting the operation of emission sources associated with their healthcare facility.

HRH has requested an amendment to their license in order to include the firing of gaseous fuels (propane and natural gas) in the boilers.

The equipment addressed in this license is located at 20 Hartford Street, Houlton, Maine.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Boilers

Equipment	Maximum Capacity (MMBtu/hr)	Maximum Firing Rate (gal/hr)	Fuel Type, % sulfur	Date of Manuf.	Stack #
Boiler #1	20.8*	148	distillate fuel, 0.5% propane, negligible natural gas, negligible	1974	1
Boiler #2	20.8*	148	distillate fuel, 0.5% propane, negligible natural gas, negligible	1974	1

*The maximum capacity for these boilers was previously listed as 22.2 MMBtu/hr. The maximum capacity has been revised to agree with the maximum firing rate of 148 gal/hr.

C. Application Classification

The modification of a minor source is considered a major or minor modification based on whether or not expected emission increases exceed the "Significant Emission" levels as defined in the Department's *Definitions Regulation*, 06-096 CMR 100 (as amended). The emission increases are determined by subtracting the current licensed annual emissions preceding the modification from the maximum future licensed annual emissions, as follows:

Pollutant	Current License (TPY)	Future License (TPY)	Net Change (TPY)	Significant Emission Levels
PM	3.0	3.0	0	100
PM_{10}	3.0	3.0	0	100
SO_2	17.8	17.8	0	100
NO_x	23.4	12.6	-10.8	100
CO	2.9	4.5	+1.6	100
VOC	0.7	1.0	+0.3	50

This modification is determined to be a minor modification and has been processed as such.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license, the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in *Definitions Regulation*, 06-096 CMR 100 (as amended). Separate control requirement categories exist for new and existing equipment.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in *Definitions Regulation*, 06-096 CMR 100 (as amended). BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

B. Boilers #1 & #2

HRH operates Boilers #1 & #2 for facility hot water and heating needs. The boilers are rated at 20.8 MMBtu/hr firing distillate fuel.

HRH has requested an amendment to their license to convert the boilers to dual fuel-fired boilers which can fire both distillate fuel and propane. The ability to also fire natural gas in the boilers is included in this amendment to offer additional flexibility, although it is not anticipated at this time that the boilers will actually fire natural gas.

The boilers were installed in 1974 and exhaust through a combined stack (Stack #1).

Due to the year of manufacture the boilers are not subject to the New Source Performance Standards (NSPS) 40 CFR Part 60, Subpart Dc, *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*, for units greater than 10 MMBtu/hr manufactured after June 9, 1989. The conversion of the boilers to add the ability to fire propane and natural gas will not result in an increase in pollutants for which the subpart has an applicable standard. Therefore, this change is not considered a modification that would trigger NSPS applicability.

1. BACT Findings

The BACT emission limits for the boilers were based on the following:

Distillate Fuel

PM/PM_{10}	–	0.08 lb/MMBtu based on 06-096 CMR 115, BACT
SO_2	–	based on firing ASTM D396 compliant #2 fuel oil (0.5% sulfur by weight)
NO_x	–	20 lb/1000 gal based on AP-42 Table 1.3-1 dated 5/10
CO	–	5 lb/1000 gal based on AP-42 Table 1.3-1 dated 5/10
VOC	–	0.2 lb/1000 gal based on AP-42 Table 1.3-3 dated 5/10

Propane

PM/PM_{10}	–	0.05 lb/MMBtu based on 06-096 CMR 115, BACT
SO_2	–	0.018 lb/1000 gal based on AP-42 Table 1.5-1 dated 10/96
NO_x	–	13 lb/1000 gal based on AP-42 Table 1.5-1 dated 10/96
CO	–	7.5 lb/1000 gal based on AP-42 Table 1.5-1 dated 10/96
VOC	–	1 lb/1000 gal based on AP-42 Table 1.5-1 dated 10/96

Natural Gas

PM/PM_{10}	–	0.05 lb/MMBtu based on 06-096 CMR 115, BACT
SO_2	–	0.6 lb/MMscf based on AP-42 Table 1.4-2 dated 7/98
NO_x	–	100 lb/MMscf based on AP-42 Table 1.4-1 dated 7/98
CO	–	84 lb/MMscf based on AP-42 Table 1.4-1 dated 7/98
VOC	–	5.5 lb/MMscf based on AP-42 Table 1.4-2 dated 7/98

The BACT emission limits for the boilers are the following:

Unit	Pollutant	lb/MMBtu
Boiler #1 (when firing distillate fuel)	PM	0.08
Boiler #1 (when firing propane or natural gas)	PM	0.05
Boiler #2 (when firing distillate fuel)	PM	0.08
Boiler #2 (when firing propane or natural gas)	PM	0.05

Unit	PM (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #1 (when firing distillate fuel)	1.66	1.66	10.47	2.97	0.74	0.03
Boiler #1 (when firing propane)	1.04	1.04	neg	2.99	1.72	0.23
Boiler #1 (when firing natural gas)	1.04	1.04	neg	2.02	1.70	0.11
Boiler #2 (when firing distillate fuel)	1.66	1.66	10.47	2.97	0.74	0.03
Boiler #2 (when firing propane)	1.04	1.04	neg	2.99	1.72	0.23
Boiler #2 (when firing natural gas)	1.04	1.04	neg	2.02	1.70	0.11

When one or more of the boilers are firing distillate fuel, visible emissions from Stack #1 shall not exceed 20% opacity on a 6 minute block average, except for no more than one (1) six (6) minute block average in a 3 hour period.

When both boilers are firing either propane or natural gas, visible emissions from Stack #1 shall not exceed 10% opacity on a 6 minute block average, except for no more than one (1) six (6) minute block average in a 3 hour period

HRH shall be limited to the use of a total of 70,000 MMBtu/year (calendar year basis) of distillate fuel, propane, and natural gas in the boilers (both boilers combined). HRH shall keep records of the type and amount of fuel fired in the boilers and convert them to MMBtu on a monthly basis. When converting fuel use to MMBtu, HRH shall use a heating value of 0.14 MMBtu/gallon for distillate fuel, 0.0905 MMBtu/gallon for propane, and 0.00103 MMBtu/scf for natural gas.

Prior to July 1, 2016, or by the date otherwise stated in 38 MRSA §603-A(2)(A)(3), the distillate fuel fired in the boilers shall be ASTM D396 compliant #2 fuel oil (maximum sulfur content of 0.5% by weight). Per 38 MRSA §603-A(2)(A)(3). Beginning July 1, 2016, or on the date specified in the statute, the facility shall fire distillate fuel with a maximum sulfur content limit of 0.005% by weight (50 ppm), and beginning January 1, 2018, or on the date specified in the statute, the facility shall fire distillate fuel with a maximum sulfur content limit of 0.0015% by weight (15 ppm). The specific dates contained in this paragraph reflect the current dates in the statute as of the effective date of this license; however, if the statute is revised, the facility shall comply with the revised dates upon promulgation of the statute revision.

2. 40 CFR Part 63 Subpart JJJJJJ

Gas-fired boilers are exempt from 40 CFR Part 63, Subpart JJJJJJ, *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*. However, boilers which fire fuel oil are not. A "gas-fired boiler" is defined as any boiler that burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment, gas supply interruption, startups, or periodic testing on liquid fuel. Periodic testing of liquid fuel shall not exceed a combined total of 48 hours during any calendar year. [40 CFR Part 63.11237]

Any boiler designed to burn fuels besides gaseous fuels prior to June 4, 2010 will be considered an existing boiler under this rule. A boiler which currently fires gaseous fuels, but converts back to firing another fuel (such as distillate fuel) in the future would become subject as an existing boiler at the time it is converted back to oil.

Since Boilers #1 & #2 fired oil after March 21, 2014, they are considered existing oil-fired boilers subject to the requirements of 40 CFR 63, Subpart JJJJJJ. Boilers #1 & #2 shall be subject to the requirements of 40 CFR 63, Subpart JJJJJJ for each calendar year the boiler(s) are unable to meet the definition of "gas-fired boiler" as described above.

A summary of the currently applicable federal 40 CFR Part 63 Subpart JJJJJJ requirements is listed below. At this time, the Department has not taken delegation of this area source MACT (Maximum Achievable Control Technology) rule promulgated by EPA, however HRH is still subject to the requirements. Notification forms and additional rule information can be found on the following website: http://www.epa.gov/ttn/atw/boiler/boilerpg.html.

a. Compliance Dates, Notifications, and Work Practice Requirements

i. Initial Notification of Compliance

An Initial Notification submittal to EPA was due no later than January 20, 2014. [40 CFR Part 63.11225(a)(2)]

ii. Boiler Tune-Up Program

(a) A boiler tune-up program shall be implemented to include the initial tune-up of the boilers which was due no later than March 21, 2014. [40 CFR Part 63.11223]

1. Each tune-up shall be conducted at a frequency specified by the rule and based on the size, age, and operations of the boiler. See chart below:

Boiler Category	**Tune-Up Frequency**
Existing Oil fired boilers that are not designated as "Boilers with less frequent tune up requirements" listed below	Every 2 years
Existing Oil fired Boilers with less frequent tune up requirements	
Seasonal (see definition §63.11237)	Every 5 years
Limited use (see definition §63.11237)	Every 5 years
Boiler with oxygen trim system which maintains an optimum air-to-fuel ratio that would otherwise be subject to a biennial tune up	Every 5 years

[40 CFR Part 63.11223(a) and Table 2]

2. The tune-up compliance report shall be maintained onsite and, if requested, submitted to EPA. The report shall contain the concentration of CO in the effluent stream (ppmv) and oxygen in volume percent, measured at high fire or typical operating load, before and after the boiler tune-up, a description of any corrective actions taken as part of the tune-up of the boiler, and the types and amounts of fuels used over the 12 months prior to the tune-up of the boiler. [40 CFR Part 63.11223(b)(6)] The compliance report shall also include the company name and address; a compliance statement signed by a responsible official certifying truth, accuracy, and completeness; and a description of any deviations and corrective actions. [40 CFR Part 63.11225(b)]

(b) The boiler tune-up program, conducted to demonstrate continuous compliance, shall be performed as specified below:

1. As applicable, inspect the burner, and clean or replace any component of the burner as necessary. Delay of the burner inspection until the next scheduled shutdown is permitted; not to exceed 36 months from the previous inspection for boilers greater than 5 MMBtu/hr or 72 months from the previous inspection for oil fired boilers less than 5 MMBtu/hr, boilers with oxygen trim systems, seasonal boilers, and limited use boilers. [40 CFR Part 63.11223(b)(1)]
2. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern, consistent with the manufacturer's specifications. [40 CFR Part 63.11223(b)(2)]
3. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure it is correctly calibrated and functioning properly. Delay of the inspection until the next scheduled shutdown is permitted; not to exceed 36 months from the previous inspection for boilers greater than 5 MMBtu/hr or 72 months from the previous inspection for oil fired boilers less than 5 MMBtu/hr, boilers with oxygen trim systems, seasonal boilers, and limited use boilers. [40 CFR Part 63.11223(b)(3)]
4. Optimize total emissions of CO, consistent with manufacturer's specifications. [40 CFR Part 63.11223(b)(4)]
5. Measure the concentration in the effluent stream of CO in parts per million by volume (ppmv), and oxygen in volume percent, before and after adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. [40 CFR Part 63.11223(b)(5)]
6. If a unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of start-up. [40 CFR Part 63.11223(b)(7)]

(c) After conducting the initial boiler tune-up, a Notification of Compliance Status was to be submitted to EPA no later than July 19, 2014. [40 CFR Part 63.11225(a)(4) and 40 CFR Part 63.11214(b)]

iii. Energy Assessment

Boilers #1 & #2 are subject to the energy assessment requirement as follows:

(a) A one-time energy assessment was required to be performed by a qualified energy assessor on the applicable boilers no later than March 21, 2014. [40 CFR Part 63.11196(a)(3)]

(b) The energy assessment was required to include a visual inspection of the boiler system; an evaluation of operating characteristics of the affected boiler systems, specifications of energy use systems, operating and maintenance procedures, and unusual operating constraints; an inventory of major energy use systems consuming energy from affected boiler(s) and which are under control of the boiler owner or operator; a review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage; a list of major energy conservation measures that are within the facility's control; a list of the energy savings potential of the energy conservation measures identified; and a comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments. [40 CFR Part 63, Table 2(4)]

(c) A Notification of Compliance Status was required to be submitted to EPA no later than July 19, 2014. [40 CFR Part 63.11225(a)(4) and 40 CFR Part 63.11214(c)]

b. Recordkeeping

Records shall be maintained consistent with the requirements of 40 CFR Part 63 Subpart JJJJJJ including the following [40 CFR Part 63.11225(c)]: copies of notifications and reports with supporting compliance documentation; identification of each boiler, the date of tune-up, procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned; documentation of fuel type(s) used monthly by each boiler; the occurrence and duration of each malfunction of the boiler; and actions taken during periods of malfunction to minimize emissions and actions taken to restore the malfunctioning boiler to its usual manner of operation. Records shall be in a form suitable and readily available for expeditious review.

EPA requires submission of Notification of Compliance Status reports for tune-ups and energy assessments through their electronic reporting system. [63.1125(a)(4)(vi)]

C. Annual Emissions

1. Total Annual Emissions
HRH shall be restricted to the following annual emissions, based on a calendar year. The tons per year limits were calculated based on:

- Firing 70,000 MMBtu/year of fuel in the boilers and the higher emission factor for distillate fuel, propane, or natural gas.
- Operation of the generators for 500 hours per year.

Total Licensed Annual Emissions for the Facility
Tons/year
(used to calculate the annual license fee)

	PM	PM_{10}	SO_2	NO_x	CO	VOC
Boilers	2.8	2.8	17.6	5.0	2.9	0.4
Generator #1	0.1	0.1	0.1	3.8	0.8	0.3
Generator #2	0.1	0.1	0.1	3.8	0.8	0.3
Total TPY	**3.0**	**3.0**	**17.8**	**12.6**	**4.5**	**1.0**

2. Greenhouse Gases

Greenhouse gases are considered regulated pollutants as of January 2, 2011, through 'Tailoring' revisions made to EPA's *Approval and Promulgation of Implementation Plans,* 40 CFR Part 52, Subpart A, §52.21 Prevention of Significant Deterioration of Air Quality rule. Greenhouse gases, as defined in 06-096 CMR 100 (as amended), are the aggregate group of the following gases: Carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. For licensing purposes, greenhouse gases (GHG) are calculated and reported as carbon dioxide equivalents (CO_2e).

Based on the facility's fuel use limit(s), the worst case emission factors from AP-42, IPCC (Intergovernmental Panel on Climate Change), and *Mandatory Greenhouse Gas Reporting*, 40 CFR Part 98, and the global warming potentials contained in 40 CFR Part 98, HRH is below the major source threshold of 100,000 tons of CO_2e per year. Therefore, no additional licensing requirements are needed to address GHG emissions at this time.

III. AMBIENT AIR QUALITY ANALYSIS

The level of ambient air quality impact modeling required for a minor source shall be determined by the Department on a case-by case basis. In accordance with 06-096 CMR 115, an ambient air quality impact analysis is not required for a minor source if the total licensed annual emissions of any pollutant released do not exceed the following levels and there are no extenuating circumstances:

Pollutant	Tons/Year
PM_{10}	25
SO_2	50
NO_x	50
CO	250

The total licensed annual emissions for the facility are below the emission levels contained in the table above and there are no extenuating circumstances; therefore, an ambient air quality impact analysis is not required as part of this license.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards, and
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-208-71-I-A subject to the conditions found in Air Emission License A-208-71-H-R/M and in the following conditions.

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

The following shall replace Condition (16) of Air Emission License A-208-71-H-R/M:

(16) **Boilers #1 & #2**

A. Fuel

1. HRH shall be limited to the use (both boilers combined) of a total of 70,000 MMBtu/year on a calendar year total of distillate fuel, propane, and natural gas. When converting fuel use to MMBtu, HRH shall use a heating value of 0.14 MMBtu/gallon for distillate fuel, 0.0905 MMBtu/gallon for propane, and 0.00103 MMBtu/scf for natural gas. [06-096 CMR 115, BACT]
2. Prior to July 1, 2016 or the date specified in 38 MRSA §603-A(2)(A)(3), the distillate fuel fired in the boilers shall be ASTM D396 compliant #2 fuel oil (max. sulfur content of 0.5% by weight). [06-096 CMR 115, BPT]
3. Beginning July 1, 2016 or on the date specified in 38 MRSA §603-A(2)(A)(3), the boilers shall fire distillate fuel with a maximum sulfur content limit of 0.005% by weight (50 ppm). [38 MRSA §603-A(2)(A)(3)]
4. Beginning January 1, 2018 or on the date specified in 38 MRSA §603-A(2)(A)(3), the boilers shall fire distillate fuel with a maximum sulfur content limit of 0.0015% by weight (15 ppm). [38 MRSA §603-A(2)(A)(3)]
5. Compliance shall be demonstrated by fuel records from the supplier showing the quantity, type, and the percent sulfur of the fuel delivered (if applicable). Records of annual fuel use shall be kept on a monthly and calendar year total basis. [06-096 CMR 115, BPT]

B. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler #1 (when firing distillate fuel)	PM	0.08	06-096 CMR 115, BACT
Boiler #1 (when firing propane or natural gas)	PM	0.05	06-096 CMR 115, BACT
Boiler #2 (when firing distillate fuel)	PM	0.08	06-096 CMR 115, BACT
Boiler #2 (when firing propane or natural gas)	PM	0.05	06-096 CMR 115, BACT

C. Emissions shall not exceed the following [06-096 CMR 115, BACT]:

Emission Unit	PM (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #1 (when firing distillate fuel)	1.66	1.66	10.47	2.97	0.74	0.03
Boiler #1 (when firing propane)	1.04	1.04	neg	2.99	1.72	0.23
Boiler #1 (when firing natural gas)	1.04	1.04	neg	2.02	1.70	0.11
Boiler #2 (when firing distillate fuel)	1.66	1.66	10.47	2.97	0.74	0.03
Boiler #2 (when firing propane)	1.04	1.04	neg	2.99	1.72	0.23
Boiler #2 (when firing natural gas)	1.04	1.04	neg	2.02	1.70	0.11

D. When one or more of the boilers are firing distillate fuel, visible emissions from Stack #1 shall not exceed 20% opacity on a 6 minute block average, except for no more than one (1) six (6) minute block average in a 3 hour period.
[06-096 CMR 115, BACT]

E. When both boilers are firing either propane or natural gas, visible emissions from Stack #1 shall not exceed 10% opacity on a 6 minute block average, except for no more than one (1) six (6) minute block average in a 3 hour period.
[06-096 CMR 115, BACT]

F. Boiler MACT (40 CFR Part 63, Subpart JJJJJJ) Requirements for Boilers #1 & #2 [incorporated under 06-096 CMR 115, BACT]

1. Boilers #1 & #2 shall comply with the requirements of 40 CFR 63, Subpart JJJJJJ for each calendar year the boiler(s) are unable to meet the definition of "gas-fired boiler".

2. An Initial Notification submittal to EPA was due no later than January 20, 2014. [40 CFR Part 63.11225(a)(2)]

3. The facility shall have implemented a boiler tune-up program to include the initial tune-up of applicable boilers no later than March 21, 2014. [40 CFR Part 63.11223]

   (a) Each tune-up shall be conducted at a frequency specified by the rule and based on the size, age, and operations of the boiler. See chart below:

Boiler Category	**Tune-Up Frequency**
Existing Oil fired boilers that are not designated as "Boilers with less frequent tune up requirements" listed below	Every 2 years
Existing Oil fired Boilers with less frequent tune up requirements	
Seasonal (see definition §63.11237)	Every 5 years
Limited use (see definition §63.11237)	Every 5 years
Boiler with oxygen trim system which maintains an optimum air-to-fuel ratio that would otherwise be subject to a biennial tune up	Every 5 years

   [40 CFR Part 63.11223(a) and Table 2]

   (b) The tune-up compliance report shall be maintained onsite and, if requested, submitted to EPA. The report shall contain the concentration of CO in the effluent stream (ppmv) and oxygen in volume percent, measured at high fire or typical operating load, before and after the boiler tune-up, a description of any corrective actions taken as part of the tune-up of the boiler, and the types and amounts of fuels used over the 12 months prior to the tune-up of the boiler. [40 CFR Part 63.11223(b)(6)] The compliance report shall also include the company name and address; a compliance statement signed by a responsible official certifying truth, accuracy, and completeness; and a description of any deviations and corrective actions.
   [40 CFR Part 63.11225(b)]

4. The boiler tune-up program, conducted to demonstrate continuous compliance, shall be performed as specified below:

   (a) As applicable, inspect the burner, and clean or replace any component of the burner as necessary. Delay of the burner inspection until the next scheduled shutdown is permitted; not to exceed 36 months from the previous inspection for boilers greater than 5 MMBtu/hr or 72 months from the previous inspection for oil fired boilers less than 5 MMBtu/hr, boilers with oxygen trim systems, seasonal boilers, and limited use boilers.
   [40 CFR Part 63.11223(b)(1)]

   (b) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern, consistent with the manufacturer's specifications. [40 CFR Part 63.11223(b)(2)]

   (c) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure it is correctly calibrated and functioning properly. Delay of the inspection until the next scheduled shutdown is permitted; not to exceed 36 months from the previous inspection for boilers greater than 5 MMBtu/hr or 72 months from the previous inspection for oil fired boilers less than 5 MMBtu/hr, boilers with oxygen trim systems, seasonal boilers, and limited use boilers.
   [40 CFR Part 63.11223(b)(3)]

   (d) Optimize total emissions of CO, consistent with manufacturer's specifications. [40 CFR Part 63.11223(b)(4)]

   (e) Measure the concentration in the effluent stream of CO in parts per million by volume (ppmv), and oxygen in volume percent, before and after adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. [40 CFR Part 63.11223(b)(5)]

   (f) If a unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of start-up. [40 CFR Part 63.11223(b)(7)]

5. After conducting the initial boiler tune-up, a Notification of Compliance Status shall be submitted to EPA no later than July 19, 2014. [40 CFR Part 63.11225(a)(4) and 40 CFR Part 63.11214(b)]

6. Energy Assessment

   (a) A one-time energy assessment was required to be performed by a qualified energy assessor on the applicable boilers no later than March 21, 2014.
   [40 CFR Part 63.11196(a)(3)]

   (b) The energy assessment was required to include a visual inspection of the boiler system; an evaluation of operating characteristics of the affected boiler systems, specifications of energy use systems, operating and maintenance procedures, and unusual operating constraints; an inventory of major energy use systems consuming energy from affected boiler(s) and which are under control of the boiler owner or operator; a review of available architectural and

engineering plans, facility operation and maintenance procedures and logs, and fuel usage; a list of major energy conservation measures that are within the facility's control; a list of the energy savings potential of the energy conservation measures identified; and a comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments. [40 CFR 63, Table 2(4)]

(c) A Notification of Compliance Status was required to be submitted to EPA no later than July 19, 2014. [40 CFR Part 63.11225(a)(4) and 40 CFR Part 63.11214(c)]

7. Records shall be maintained consistent with the requirements of 40 CFR Part 63 Subpart JJJJJJ including the following [40 CFR Part 63.11225(c)]: copies of notifications and reports with supporting compliance documentation; identification of each boiler, the date of tune-up, procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned; documentation of fuel type(s) used monthly by each boiler; the occurrence and duration of each malfunction of the boiler; and actions taken during periods of malfunction to minimize emissions and actions taken to restore the malfunctioning boiler to its usual manner of operation. Records shall be in a form suitable and readily available for expeditious review.

DONE AND DATED IN AUGUSTA, MAINE THIS 28 DAY OF August , 2014.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Mara Allen Robert Cone for
PATRICIA W. AHO, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-208-71-H-R/M.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 6/30/14
Date of application acceptance: 7/3/14

Date filed with the Board of Environmental Protection:

Filed
AUG 28 2014
State of Maine
Board of Environmental Protection

This Order prepared by Lynn Poland, Bureau of Air Quality.